050-1388-00

M37538

GATE CIRCUIT BOARD REPLACEMENT

For TEKTRONIX® Type S-2 Sampling Heads

Serial Numbers B010100 - B083694

Gate (Sampler) circuit board, pn 670-0169-03, replaces the Gate (Sampler) circuit boards, pn 670-0169-00 or 670-0169-02, which are no longer available. New sampling bridge diodes on the new Gate circuit board require the addition of a zener diode to the Preamplifier circuit board for additional protection.

NOTE

If the instrument serial number is greater than those listed above or if this kit has been installed, disregard these instructions and use the included Gate circuit board as a direct replacement.

11-19-80
Supersedes: 7-31-80

PARTS INCLUDED IN PARTS REPLACEMENT KIT:

Ckt. No.	Quantity	Part Number	Description
VR28	1 ea	152-0647-00	Semicond dvc, diode, zener, 6.8V 5% 0.4W
	1 ea	670-0169-03	Circuit board ass'y, Gate (Sampler)
	1 ea		Label, 050-kit

CAUTION

The Gate (Sampler) circuit board includes components susceptible to static-discharge damage. Observe standard precautions for static-sensitive devices when handling the circuit board.

INSTRUCTIONS:

WARNING

Before proceeding, ensure the mainframe power switch is in the OFF Position, then disconnect the sampling head.

NOTE

The following tools are recommended for the disassembly and assembly required during the replacement of the Gate circuit board:

Quantity	Tektronix, Inc. Part Number	Description
1 ea	003-0459-00	Nutdriver, dodecagon (12), GR connectors
1 ea	003-0607-00	Tool assembly, GR to stripline connectors

( ) 1. Remove the four screws securing the rear panel.

( ) 2. Remove the rear panel.

( ) 3. Remove the cover by sliding to the rear.

( ) 4. Using the 12-sided GR connector nutdriver, remove the nut securing the signal input connector, J1, to the front panel.

( ) 5. Remove the front panel and front subpanel.

( ) 6. Carefully pull the Strobe and Preamplifier circuit boards away from the Gate (Sampler) circuit board. Ensure the interconnecting pins and connectors are properly aligned.

( ) 7. Using the GR to stripline connector tool, loosen, but do not remove, the threaded nut securing the GR connector to the transmission line adapter by turning counterclockwise. Loosen until the grooves in the adapter plate can be disengaged from the tabs on the Gate circuit board shields.

( ) 8. Turn the adapter plate 90° and pull forward to remove the input connector from the circuit board.

( ) 9. Remove the seven screws and nuts securing the shields to the Gate circuit board and transfer the shields to the new Gate circuit board included in the kit.

( ) 10. On the front of the Preamplifier circuit board, add the provided zener diode, VR28, between the interconnect square pin sockets 'H' and 'I'. The cathode (banded end) connects to 'H' and the anode to 'I' (see Fig. 1).

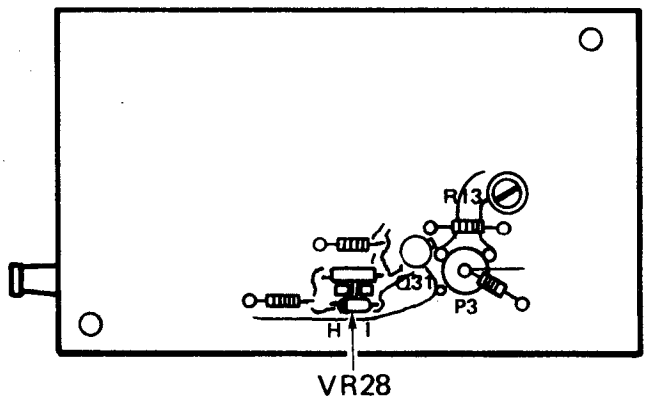


Fig. 1. Partial component layout of the Preamplifier circuit board.

( ) 11. Reassemble the sampling head, using the reverse of the removal procedure as described in steps 4 through 8.

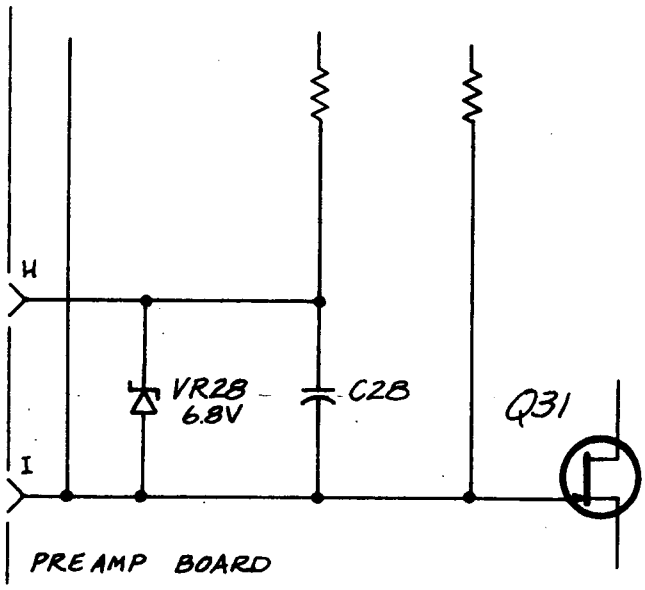
( ) 12. Refer to the Performance Check/Calibration Section (5) in the Type S-2 Instruction Manual and check instrument performance, making any necessary adjustments.

( ) 13. Install the cover and rear panel, using the reverse of the removal procedure as described in steps 1 through 3. Ensure the Preamplifier and Strobe circuit boards align with the cover channels containing zigzag springs.

( ) 14. Remove the protective backing from the provided 050-kit label and apply the label to a clean, dry area on the cover. The label indicates the installation of this kit for future reference.

( ) Attach the following manual insert to the Type S-2 Instruction Manual.

DRL:cs



Partial SAMPLING HEAD schematic.